

Nortel DECT Handset 4145Ex and 4146Ex User Guide



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Congratulations

on your new Nortel 4145Ex/4146Ex handset

The handset 4145Ex/4146Ex will provide you with the greatest possible degree of flexibility and mobility due to high battery capacity, practical weight, size and design.

STOP!

**Charge your
handset 14 - 16
hours prior to
first use for best
performance**

Please note that the handset 4145Ex/4146Ex is for use with the following Nortel host systems:

- Norstar MICS 7.0 or greater (Modular Integrated Communications System)
- Norstar CICS 7.0 or greater (Compact Integrated Communications System)
- BCM 3.7 or greater (Business Communication Manager)

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Getting Started

Read all the information in this section before you use your handset.

Handset information

Ensure that the adapter voltage is the same as the electrical outlet voltage. The 4145Ex/4146Ex handset uses radio signals and does not guarantee a connection in all circumstances. Do not rely on a cordless handset to make emergency calls.

Never use your handset:

- in the vicinity of electrical detonators
- in shielded rooms
- in areas where radio transmission is forbidden
- in aircraft

Do not place a handset near:

- water, moisture or damp areas
- heat sources, direct sunlight or unventilated areas
- devices which generate strong magnetic fields such as electrical appliances, fluorescent lamps, computers, radios, televisions or fax machines
- areas where the handset can be covered, its ventilation impaired, liquid spilled on the unit or objects inserted into the handset through any openings.
- areas with dust, vibration, shock or temperature extremes

Check for small metal objects in the handset earpiece/mouthpiece before using the handset.

Do not store or locate flammable liquids, gases, or explosive materials in the same compartment or vicinity as the cordless handset, its parts or accessories.

Battery information

Read the following information before you handle the batteries:

- Do not replace the batteries in potentially explosive environments, such as rooms where flammable liquids or gases are present.
- The battery will explode if disposed of in a fire.
- Do not charge the batteries unless you use the Nortel Networks approved charger and the proper batteries.
- Only use battery type NTTQ47LA in the 4145Ex/4146Ex handset. Do not use these batteries with other products. These batteries were designed specifically for use with the 4145Ex/4146Ex handset and the 4145Ex/4146Ex charger (NTTQ47MA) ONLY. Improper use of the batteries may result in fire hazard.
- Do not do anything that would cause the battery to short circuit.
- Do not let the battery or the charger come into contact with conductive metal objects.

Installing battery

The battery is connected to the handset when it is shipped from the factory.

- 1** To change the battery unscrew the plate on the rear of the handset to access the battery compartment. Use a normal screw driver.
- 2** Insert the screwdriver into the small crack behind the blind cover and break to open the handset.



- 3** Place the battery plug in the slot in the battery box.



- 4** Insert battery with the label readable.
- 5** Replace the back cover.

If the handset is turned off when placed in charger, only the LED indicates the charging. When handset is turned off, the LED flashes at a low frequency while charging and lights constantly when the charging is finished. There will be no reaction for incoming calls.

If the handset is turned on when charging, the display shows the charging status. The display goes back to normal mode when fully charged. It will not vibrate. Auto-answer is inactive. The handset reacts normally for incoming calls.

It is necessary to recharge the battery when the display shows **BATTERY LOW**, or if the handset cannot be turned on. When the battery is fully discharged, up to 10 minutes may pass before charging begins (display lights up). When the charger begins the charging, status is shown in the display if the handset is turned on.

Checking battery capacity

In the **BATTERY MENU** it is possible to see the remaining battery capacity.

For reading the correct capacity, the handset has to be removed from the charger for at least one hour.

- 1 Press **MENU** (\equiv) and use the < or > keys to reach the **BATTERY MENU**.
- 2 Press ✓ to enter the **BATTERY MENU**, and see the current status of the battery capacity.

- 3 Press ✓ to return to the menu system, or press **MENU** (≡) to quit.

The indication on the display is not necessarily an exact reflection on the remaining speech time, but only an indication of the voltage on the battery.

Battery disposal

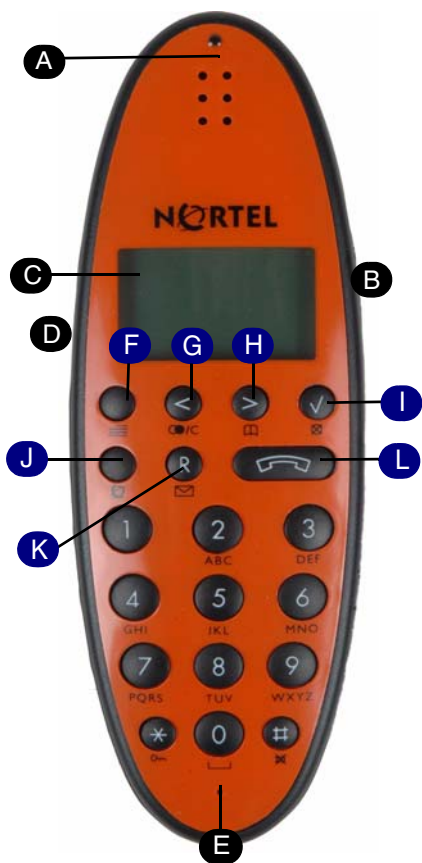
Defective batteries must be returned to a collection point for chemical waste disposal.

Warning: Nickel metal hydride batteries must be disposed of properly. Do not dispose of the batteries in office or household waste.

Nickel metal hydride batteries are recyclable. You can help preserve the environment by returning your unwanted batteries to your nearest recycling center for recycling or proper disposal.

Contact your system administrator for more information about battery disposal and recycling centers in your local area.

About your 4145Ex/ 4146Ex handset



- A Message indicator light**
Flashes when you have a message waiting.
- B Volume control**
Adjusts the handset and ringer volume.
- C Display**
Shows call information, handset status icons, and guides you through features and option menus.
- D Headset connector**

E Microphone

Keys F to L activate different functions when your handset is on hook or off hook.

On hook: Handset is idle (not in use).

Off hook: Handset is active, call or feature in progress.

F Menu key

On hook (idle) Enters the Handset Options menu.

Off hook (active) Activates a feature option.

G < (●/c) key

On hook (idle) Enters the Redial List menu.

Off hook (active) Activates a feature option.

H > (☒) key

On hook (idle) Enters the Telephone Book menu.

Off hook (active) Activates a feature option.

I ✓ (☒) key

On hook (idle) Turns the handset off with a long (four second) key press.

Off hook (active) Turns the microphone off or on when you are on a call.

J Ⓞ Feature key

On hook (idle) Turns the display on for three seconds with two rapid key presses.

OR

Starts a feature session.

Off hook (active) Starts or ends a feature session.
OR
Turns the loud speaker on with a long key press .

K  **R key**

On hook (idle) Opens your message list with a short key press.
OR
Enters the text message (MSF-MAIL) menu with a long (three second) key press.

Off hook (active) Places calls on hold.

L  **On/Off hook key**


On hook (idle) Turns the handset on.

Off hook (active) Ends an active call.

Handset display


There are four lines on your handset display.

Display information example


JEAN	2245	—	Line 1
PETER	called	—	Line 2
NEXT CALL	ERASE	—	Line 3
((.))		—	Line 4



The types of information shown on the display are:


- **Standby text:** When the handset is on hook (idle), your extension name and number appears on the first line of the display.
- **Information text:** Call or feature information appears on the second line of the display.
- **Feature options:** Feature options appear on the third line of the display. Feature options vary, depending on the type of call or feature in use.
- **Handset icons:** The following icons appear on the fourth line of the display:

 The radio signal icon indicates connection to system.

Note: The icon flashes when the system is busy and you will not be able to make or answer calls.

 The envelope icon indicates a new text message (MSF-MAIL).

 Left and right arrow icons
 appear on the display when you access Handset option menus.

 The telephone icon indicates a call is active.

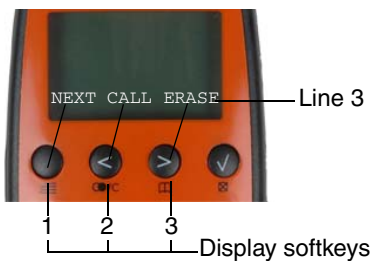
Note: The icon flashes when a call connection is in progress.

Display softkeys

Three display softkeys are used to activate feature options that appear on the third line of the display.

The following graphic shows the softkey mapping for feature options on the third line of the display.

Display softkey mapping example



Display backlight

The display backlight automatically turns on when there is an incoming call, or if a key is pressed.

The backlight turns off after 10 seconds when the handset is idle.

You can disable the backlight to save power, refer to the [“Customizing handset”](#) section in this guide for more information.

Note: The backlight is disabled when the key lock function is activated.

Basic handset options



Turning the handset ON/OFF

ON



Press .

When the handset is turned on the radio signal display icon is shown in the lower left corner of the display, if the handset is subscribed to a system.

OFF









Press  () for 4 seconds.

Adjusting speaker volume

- 1 Press .
- 2 Use the two keys placed at the upper right side of the handset for volume control.
- 3 Press  again.

Changing Menu Language

There are eleven predefined languages in the handset: English, German, French, Italian, Spanish, Dutch, Portuguese, Turkish, Danish, Swedish and Norwegian.

- 1 Press **MENU** (), and then press .
- 2 Switch to **SET PROFILE LANGUAGE** using the   keys, then press .
- 3 Use the   keys to choose between the predefined languages, then press  to select the required language.

- 4 Press **MENU** (≡) to exit the menu structure.

See [Figure 1 on page 56](#).

Customizing handset

The handset has one user-defined profile (set up), and a mode where all sounds are disabled (SILENT).

- Press **MENU** (≡) followed by ✓ to show the profile.

All settings have to be defined under the profile. The display shows if the SILENT mode is enabled.

Profile set-up

In the following you will find a description of how to set up the profile.

- 1 Press **MENU** (≡) to enter the **PROFILE SET UP MENU**.
- 2 Press ✓.
You are now able to switch between the different settings using < or >.
- 3 Press ✓ when you find the setting you wish to change (or see).
- 4 Change the setting according to your needs, confirm with ✓ and you automatically go to the next setting.
- 5 Press **MENU** (≡) to finalize profile setup.

See [Figure 2 on page 57](#).

Description of profile functions

RINGERTONE:

Scroll through the 9 different ringtones using < and >. Confirm with ✓.

RINGER VOL:

Turn the volume up and down using < or >. Confirm with ✓.

KEY CLICK:

Turn the volume up and down using < and >. Confirm with ✓.

VIBRATOR:

Can be turned on/off using < and >. Confirm with ✓.

Auto-ANSWER:

Can be turned on/off using < and >. Confirm with ✓.

When turned on, the telephone automatically goes off hook when ringing.

START VOL:

Start volume can be adjusted using < and >. Confirm with ✓.

OUT OF RANGE:

The out of range indication can be turned on/off using < and >. Confirm with ✓.

With the out of range indicator turned on, a beep will sound when the telephone is moving out of range of the base station, and "OUT OF RANGE" will appear in the display. If on a call (when out of range) the call will be transferred to the prime set.

AUTO KEYLOCK:

The auto keylock function can be turned on/off using < and >. Confirm with ✓.

With auto keylock turned on the handset will automatically lock the keys after 60 seconds. Press **MENU** (≡), then press * to activate the keys again.

Language:

Choose between predefined languages using < and >. Confirm with ✓.

BACKLIGHT:

Can be turned on/off using < and >. Confirm with ✓.

Refer to [“More handset options” on page 27](#) for more information on the menu.




Making and answering calls

The handset must be subscribed and registered to make or answer a call. (Contact your system administrator to have your handset subscribed).



For internal calls, dial the extension number. (Contact your system administrator for a list of extension numbers).

For external calls, dial the external code (or line pool code) to access an external line, then dial the external telephone number. (Contact your system administrator to confirm what external code or line pool code to use).





Dial directly

- 1 Press , the  display icon flashes until the call is connected.
- 2 Dial the number.
- 3 Press  again to end the call.

On hook dialling (pre-dial)

- 1 Dial the number.
A long press on * will make a pause, if necessary.
- 2 Press .
- 3 Press  again to end the call.


Dial from your phone book

- 1 Press > () to enter the telephone book.
- 2 Search for the number either by using the < > -keys, or by pressing the first letter in the name by using the digits 2 – 9.
- 3 Press , the  display icon flashes until the call is connected.
- 4 Press  again to end the call.

Note: For more information on using your phone book, refer to [“Using phone book” on page 30](#).

Redial




The handset has maximum 10 redial numbers. Each number is only represented once.


- 1 Press < (/c) to enter the redial list.

You can also reach the **REDIAL MENU** in the main menu.

- 2 Search for the number by using the < > -keys.

Redial numbers are marked with “REDIAL” or name of the person who called, if present in the phone book.


- 3 Press , the  display icon flashes until the call is connected.
- 4 Press  again to end the call.

Note: Use the Redial list or the Last Number Redial Feature ( 5) to automatically redial the last external telephone number that you called.


Answering calls

Depending on the system hardware/software configuration, Call Display information (CLID) for incoming external calls will appear on the display. Your system administrator must enable the CLID feature for your handset in system programming.



To answer a call:

- Press  to answer a call when your handset rings.
- If you are using headset, press any key on the handset to answer the call.

To stop the handset ringing without answering the call:

- Press  and the ring signal is muted. The display shows:
»RINGER MUTED«
- Alternatively, press one of the volume control buttons to mute the ringing signal.

Hold a call

- 1** While on a call, press **R** (.
- 2** To retrieve the held call, press **R** ( again.

Making or answering a second call

You can have two calls active at the same time. Use **R** (☒) to switch between calls.

To answer a second call while on another call

- Press **R** (☒) to answer the second call. The first call is automatically put on hold.

To hold a call and make a second call

- 1 Press **R** (☒) to put the first call on hold.
- 2 Dial the telephone number of the second call.

To return to the first call

- Press **R** (☒) again to return to the first call.

The second call is automatically put on hold.

Mute a call

- 1 While on a call, press ☒.
- 2 To cancel mute, press ☒ again.

Turn on loudspeaker

- 1 While on a call, press ☒ (long key press) to turn the loudspeaker on.
- 2 To turn the loudspeaker off, press ☒ (long key press) again.

Replying to messages

This allows you to read messages from another DN (Directory Number) in the system or to listen to voice-mail messages.

The red LED on your handset flashes when you receive a message from an internal voice message center or another telephone on your system. This is the message waiting indication.

To view, reply and listen to your messages

- 1 While on hook, press **R** (✉) (short key press) to access your message list.
- 2 Press NEXT to view all messages in the list.

Note: The NEXT softkey only appears on the display when you have more than one message.

- 3 Press CALL to reply to a message in the list.
- 4 Press ERASE to delete a message from the list.

Note: Refer to the document provided with the internal voice message center for more information about mailbox options.

More handset options

Moving around in the Menu

Press **MENU** (≡) to enter or exit the menu structure. It has to be used if a “NO” or “CLEAR” is wanted in the menu structure.

Press ✓ to jump to a lower level in the menu. When the lowest menu level is reached, it will store the setting and jump to a higher level. It has to be used if a “YES” is wanted.

Note: If the handset is in the menu, and an incoming call arrives, then the menu will be dropped and the call handled in the normal way.

See [Figure 3 on page 58](#).

Menu structure

The main menu consists of the following 8 menus:

MENU PROFILE SET UP

For more information, see [“Customizing handset” on page 19](#).

MENU EXT. SERVICE

External services are only applicable to the Master handset. For more information, contact your system administrator .

MENU BATTERY

For more information, see [“Checking battery capacity” on page 11](#).

MENU PHONE BOOK

For more information, see [“Using phone book” on page 30](#).

MENU REDIAL

The handset has maximum 10 redial numbers. Each number is only represented once.

- Press **MENU** (\equiv), press > four times from standby text to enter the **REDIAL MENU**, and then press ✓.

Repeated presses at < turn backward through the dialled numbers (from newest to the oldest).

Right arrow moves in the opposite direction.

Note: It is also possible to reach the **REDIAL MENU**, using the < (●/c) key.

- Numbers are named "REDIAL" or with the name.
- If you want to delete a "REDIAL" use < or > to scroll to the name/number, and then press ✓ twice.

The name/number is now deleted. If the number is stored, it is moved to the telephone book.

It is possible to add prefixes to the redial numbers.

- Find the number you wish to edit and press the digits you want to add to the number, e.g. prefix = 0.

See also ["Redial" on page 23](#).

MENU MSF-MAIL

For more information, see ["Replying to messages" on page 26](#).

MENU LOGIN

For more information on this menu option, contact your system administrator.

MENU MSF FUNCTION

MSF Functions are special functions, which are based on MSF (Message Service Function). The functions require special software in the main system.

Note: The **PHONE BOOK MENU**, **REDIAL MENU** and **MSF-MAIL MENU** can be accessed directly. The **PHONE BOOK MENU** by pressing > (☐), the **REDIAL MENU** by pressing < (●/c), and the **MSF-MAIL MENU** by pressing **R** (☐) with a long key press.

Using phone book

You can store telephone numbers and names in your telephone book.

The telephone book can store up to 80 numbers with name. A maximum of 23 digits, including spaces, is allowed for each number. A maximum of 24 digits, including spaces, is allowed for each name. Names are sorted alphabetically starting with their first character.

Using the alphanumeric keyboard

The normal dialling keys (0-9) are used for writing the name to be placed in the telephone book. By pressing the keys a certain number of times the related letters or digits will appear in the display.

Spaces are made by using the 0 -key.

Key* changes between uppercase and lowercase letters.

The arrows will move the cursor.

Left arrow is also used for deleting (hold for 1 sec.) = delete. New letters can be inserted.

Change of key press and pauses lasting more than 1 second automatically moves the cursor to next position.

Key	Capital letter	Small letter
1	? ! 1 - + * / = & () % ÿ ÿ	? ! 1 - + * / = & () % ÿ ÿ
2	A B C 2 Ä Å À Á Ã Æ Ç	a b c 2 ä å à á ã æ ç
3	D E F 3 È É Ê Ë	d e f 3 è é ê ë
4	G H I 4 Ì Í Î Ï	g h i 4 ì í î ï
5	J K L 5	j k l 5
6	M N O 6 Ñ Ö Ò Ó Ô Õ Ø	m n o 6 ñ ö ò ó ô õ ø
7	P Q R S 7 ß	p q r s 7 ß
8	T U V 8 Ü Ù Ú Û	t u v 8 ü ù ú û
9	W X Y Z 9	w x y z 9
0	[Space] , . 0 : ; _ " ' ^ ~	[Space] , . 0 : ; _ " ' ^ ~
*	A → a	a → A
#	# @ € \$ £ ¥ § < > { } [\]	# @ € \$ £ ¥ § < > { } [\]

Storing a number

- 1 While on hook, press the number to be stored (max. 23 digits), press >, and then press ✓.
- 2 Enter a name (max. 24 digits), and then press ✓ to store the number.

After storing, the telephone will go back to standby mode.

- 3 If the display shows “MEMORY FULL”, it is necessary to delete one or more numbers from the telephone book.

See [Figure 5 on page 60](#).


Storing from Redial list

- 1 While on hook, use the <-key to find the number in the redial list to be stored in the telephone book.
- 2 Press ✓, then >, and then press ✓ again.
- 3 Enter a name, and then press ✓ to store the redial list number in the telephone book.

Storing number from last caller

- While on hook, press < to store a number from last caller, then ✓, then press >, then ✓ to confirm.

Reading BOOK numbers

- 1 While on hook, press > (☐) to enter the telephone book.
- 2 For quick-search: press the first letter of the name (using 2-9)(Refer to [“Using the alphanumeric keyboard” on page 30](#)).
- 3 Press  to call the displayed person.

It is also possible to reach the **PHONE BOOK MENU** from the main menu.

- 4 Press **MENU** (\equiv) to exit the telephone book.

Note: Viewing and editing the telephone book can also be done while in conversation (off hook) by pressing > (\square) with a long key press.

See [Figure 6 on page 61](#).

Changing numbers

- 1 While on hook, press > (\square) to enter the telephone book.
- 2 Use the < > -keys to find the number to be edited, press ✓, press >, then press ✓.
- 3 Edit the number, and then press ✓ to store the number.

Note: Viewing and editing the telephone book can also be done while in conversation (off hook) by pressing > (\square) with a long key press.

See [Figure 6 on page 61](#).

Changing Redial number

- 1 While on hook, press < (\bullet/c), use the < > -keys to find the redial number to be edited, and press the digits you want to add to the number, e.g. prefix = 0.
- 2 Press ✓, followed by >, enter a name, and then press ✓ again to store the number.

Deleting numbers

- 1 While on hook, press > (☐) to enter the telephone book.
- 2 Use the < > -keys to find the number to be deleted, press ✓ twice.

See [Figure 6 on page 61](#).

Deleting from Redial list

- While on hook, press < (●/C), then use the < > -keys to find the name/number to be deleted, and press ✓ twice.

The name/number is now deleted. If number is stored, it is moved to the telephone book.

Using text messages (MSF)


It is possible to send text messages from handset to handset on the same system.

Note: Sending text messages is not supported. This feature will be supported in upcoming releases.



See [Figure 4 on page 59](#).

At the reception of a text message the envelope display icon appears. The envelope display icon is indicating one or more unread messages or unanswered calls.

- The text message is shown in the display, and when the message is read the envelope display icon will disappear.

- If the message contains a callback number, this will be displayed on the bottom line of the display. As long as the callback number is in the display, it is possible to activate the number by pressing .
- 1st letter in the display, in front of the timestamp, shows the message status: read (R), unread (N) or locked (L).
- Mails include a maximum of 72 letters or digits. Call back no. is max 23 digits (or letters for E-mail).
- 14 messages can be "stored" in the handset. When receiving a new message, the oldest unlocked will be deleted.
- Locked messages will not automatically be overwritten, but can manually be deleted. Maximum 7 messages can be locked.

Reading a MSF mail

- 1 While on hook, press **R** () with a long key press, then press ✓.
- If the message includes more than 48 letters or digits, the message will run over 2 display screens.
- 2 Use the > -key to scroll.
 - 3 To see the sender of the mail, press ✓.
 - 4 To leave the mail, press **MENU** ()

Replying a MSF mail

- 1 While on hook, press **R** (✉) to open the mail, then ✓, press ✓ again and use the < > -keys to find the reply feature, press ✓ and you are now able to reply the mail.
- 2 After writing your reply, press ✓ to confirm.

Forwarding a MSF mail

- 1 While on hook, press **R** (✉) to open the mail, then ✓, press ✓ again and use the < > -keys to find the forward feature, press ✓ twice and you are now able to dial the number on the receiver.
- 2 Press ✓ to confirm.

Deleting all MSF mails

- 1 While on hook, press **R** (✉) to open the mail stack, then ✓, press ✓ again and use the < > -keys to find the delete feature.
- 2 Press ✓ and all mails are deleted.

Deleting a MSF mail

- 1 While on hook, press **R** (✉) to open the mail, then ✓, press ✓ again and use the < > -keys to find the delete feature.
- 2 Press ✓ and the mail is deleted.

Locking/unlocking a MSF mail

When locking a message, the message will not automatically be overwritten when receiving a new message. If unlocked, the oldest message will be deleted when receiving a new message.

- 1 While on hook, press **R** (✉) to open the mail, then ✓, press ✓ again and use the < > -keys to find the lock/unlock feature
- 2 Press ✓ and the mail is locked/unlocked.

Writing a MSF mail

- 1 While on hook, press **R** (✉) with a long key press to write a new mail, confirm with ✓, and then write your message.
- 2 To send the mail press ✓, dial the number of the receiver, and then confirm with ✓.
- 3 If one or more mails are stored do as followed:
 - Press **R** (✉), then >, confirm with ✓, and then write your message.
 - Press ✓, dial the number of the receiver, and confirm with ✓.
The message is sent.

Note: In case a sent message is not received, the sender will get a message in the display.

Shortcuts

"SILENT": Press: **MENU** (≡) followed by #. (No sounds) (Display shows SILENT)

"KEY LOCKED": Press: **MENU** (≡) followed by *. (Display shows KEY LOCKED)

"PHONE BOOK": Press > (☐) (in on hook).

Name search in telephone book:
Press the first letter in name.

Store a number: Press > (☐) after the number (in on hook).

"REDIAL": Press < (●/c) in on hook.

Check messages: Short Press **R** (☐) in on hook.

"MSF-MAIL": Long Press **R** (☐) in on hook.

MUTE temporarily the ringer: Press ✓ (☒) when the telephone is ringing. Alternatively, you can also press one of the volume control buttons to mute the ringing signal.

MUTE the microphone: Press ✓ (☒) when the telephone is off hook.


RECALL: Press **R** (☐).

Pause(-): Hold * for one second (only for on hook dialling/pre-dial).

General information

Troubleshooting

The telephone freezes.

Remove and replace the battery pack. Press  to turn on the telephone.

The telephone does not ring.

Check whether the ringer is SILENT or RINGER VOL. is OFF.

Not possible to turn on the telephone.

Check if battery is connected. If yes, charge the battery.

The telephone turn off when receiving a call and going off-hook.

Charge the battery. If still a problem change the battery as it might be defective.

Information

Error information

Improper function of the handset might be related to the installation of the DMC system or failures related to the main system.

Before declaring a handset for repair be sure that the main system is operating properly.

Technical specification

Approvals

Acoustics: CTR10/TBR 10 ed. 3

Electrical: EN 301 406 V1.4.1 (DECT RF)

Access profile: CTR22/TBR 22 Jan. 97 (GAP)

EMC: EN 301 489-1 V1.4.1/EN 301 489-6 V1.2.1

IP64 class: IEC 60529 (IP54)

EN50014/IEC 60079-0

EN50020/IEC 60079-11

Enclosed protection (dust tight):

IEC 6059 (2001-02), Ed. 2.1, IP6x

Enclosed protection (splashing):

IEC 6059 (2001-02), Ed. 2.1, IPx4

Size and weight

Size: 148 x 50 x 28 mm

Weight: 130 g incl. battery \pm 10 g

Capacity

Active talking time 16 hours

Stand-by time 150 hours

Temperature and air pressure

Operating temperature: 0-40°C

Air pressure: Normal atmosphere condition

Charger (orange)

The AC power adapter used in connection with the handset charger

N0018956 must **not** be connected to a voltage higher than 250V AC.

Important Safety Instructions and Product Information



Before using your telephone equipment, you should always follow basic safety instruction to reduce the risk of fire, electrical shock and injury to persons, and damage to property.

1. Read and understand all instructions
2. Follow all warnings and instructions including those marked on the product
3. Unplug this product before cleaning. Do not use liquid cleaners or aerosol cleaners. Use damp cloth for cleaning
4. Do not install the telephone equipment in the bathroom or near a

- wash bowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool
5. Slots or openings in the equipment are provided for ventilation to protect it from over-heating. These openings must not be blocked or covered.
 6. The product should be operated only from the type of power source indicated on the instructions. If you are not sure of the type of power supply, consult your dealer or local power company.
 7. Do not overload wall outlets and extension cords as this can result in fire or electrical shock.
 8. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in fire, electrical shock, or injury. Never spill liquid of any kind into this product.
 9. To reduce the risk of electrical shock or burns, do not disassemble this product. Opening or removing covers may expose you to dangerous voltages, dangerous electrical current, or other risks. Incorrect reassemble can cause electrical shock when the appliance is subsequently used. If the product need repair, consult your dealer.
 10. Refer servicing to qualified service personnel.
 11. Avoid using telephone during an electrical storm. There may be a risk of electrical shock from lightning
 12. Do not use the telephone to report a gas leak in the vicinity of the leak
 13. Do not place the base or charger near microwave ovens, radio equipment, or non-ground connected televisions.

These appliances may cause electrical interference to the base or handset

14. The charger must be placed on a hard, flat surface and connected to a functional 120 volt AC power source depending on the country of use.
15. This telephone will not operate in the event of a blackout. Please keep a backup phone for emergencies

Exposure to sunlight, heat and moisture

Do not expose the cordless phone to direct sunlight for long periods. Keep the cordless phone away from excessive heat and moisture.

Spare parts and accessories

Use only approved spare parts and accessories. The operation of non-approved parts cannot be guaranteed and may even cause damage.

Power failure

In the event of a power failure or flat battery, you cannot use the handset to make or receive calls

Battery Precautions

1. Periodically clean the charge contacts on both the charger and handset.
2. Exercise care in handling batteries in order not to short the batteries with conducting materials such as rings, bracelets, and keys. The batteries or conducting material may overheat and cause burns or fire
3. Do not open or mutilate the batteries, released electrolyte is corrosive and may cause damage to the eyes or skin. The electrolyte may be toxic if swallowed.
4. During charging batteries heat up. This is normal and not dangerous

5. Do not use non-Nortel charging devices. This could damage the batteries

Warning: Do not charge DECT Handset 4145Ex/4146Ex in a potentially explosive atmosphere. Use only the dedicated charger **N0018956** (orange) for charging of DECT Handset 4145Ex/4146Ex.

Warning: The battery must **not** be removed in a potentially explosive atmosphere.

Notices

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by the user to this equipment, or equipment malfunctions, may give the telecommunications company cause to request the user to disconnect the equipment.

Users should ensure for their own protection that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas

CAUTIONS: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

If your telephone equipment causes harm to the telephone network, the telephone company may ask you to disconnect the system from the line until the problem has been corrected or they may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you should be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the proper functioning of your telephone system. If they do and it is possible, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service. If you experience trouble with this telephone system, disconnect it from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

Note: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to local regulations. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

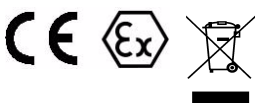
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Power Outage: In the event of a power outage, your cordless telephone will not operate. The cordless telephone requires electricity for operation. You should have a telephone which does not require electricity available for use during power outages.

Information to user: The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EC Declaration of Conformity



Manufacturer:

KIRK telecom A/S

Langmarksvej 34

8700 Horsens

Denmark

Product

DECT Handset 4145Ex/4146Ex

ATEX handset

Type 0238 02XX

Type number

XX can vary (numbers and letters)
depending on software and design.

Telecom requirements

The transceivers described above
comply with the essential require-
ments of the R&TTE directive 99/5/
EC if used for the intended purpose.

Applied standards

Standards	Date
EN 60950 Health and Safety requirements	2000-1
EN 301 489-1 Electromagnetic Compatibility requirements	2001-09
EN 301 489-6 Electromagnetic Compatibility requirements	2000-09
TBR 22 Generic Access Profile (GAP)	1997
TBR 10 General Terminal Attachment requirements	1999
TBR 6 General Terminal Attachment requirements	1999

Application, Intended purpose

The DECT Handset 4145Ex/4146Ex is a DECT based handset, designed to be used in connection with Nortel Networks wireless communication solutions in potentially explosive environments. The DECT transmitter frequencies of the apparatus are harmonized for these services in the European Community.

Meaning of Conformity

For the application of the equipment in areas which have a potentially explosive atmosphere, the manufacturer declares on his own responsibility that under the claimed type of protection the equipment is in conformance with the relevant European harmonized standards. The equipment may only be used under conditions that are mentioned in the ATEX and IEC Type Examination Certificate.

Electrical apparatus for potentially explosive atmospheres

The DECT Handset 4145Ex/4146Ex is in conformance with the requirements of the ATEX Directive 94/9/EC as well as the below standards:

Standards	Date
EN 50014 (+ amendments) General requirements	1997
EN 50020 Intrinsic Safety " i ".	2002
EN 50281-1-1 For use in the presence of combustible dust.	1998
EN 60529 (+ amendments) Ingress Protection Degree, IP-code.	2000
IEC 60079-0 General requirements	2000
IEC 60079-11 Intrinsic Safety " i ".	1999

Notified Body

Identification number: **0539**

Examination Certificate

EN: DEMKO 04 ATEX 136204 X

IEC: IECEX ULD 04.0001 X


Validity


This declaration is only valid if accompanied with an EC Type Examination Certificate obtained from a Notified Body or from a competent authority in an EU member state.

Quality Assurance

The product is designed and produced by a manufacturing organisation, which is certified on ISO 9001: 2000 and ISO 14001: 1996 standards. These products are in conformance with the full quality assurance procedures as mentioned in annex III, IV and VII of the ATEX directive 94/9/EC and annex V of the R&TTE directive 99/5/EC and bears the marking 0539. The number 0539 is the identification number of UL International, Demko A/S. Compliance with the requirements of ISO 9001: 2000 and ATEX directive are assessed and certified by the Notified Body:

UL International
Demko A/S
Lyskaer 8
P. O. Box 514
DK-2730 Herlev

Technical Director:	Erik Stridbæk
Signed:	
Date:	10-09-2004

Quality Manager:	Søren E. Mikkelsen
Signed:	
Date:	10-09-2004

Safe use of the ATEX approved DECT Handset 4145Ex/4146Ex

For safe use of the ATEX approved
DECT Handset 4145Ex/4146Ex,
remember the following:

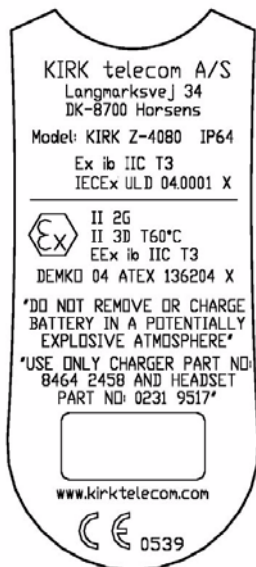
The DECT Handset 4145Ex/4146Ex
is developed for use in potentially
explosive working environments, as
defined by local fire protection author-
ities. The handset complies with the
ATEX directive 94/9/EC as well as
IEC standards.

For safe use of DECT Handset
4145Ex/4146Ex:

- Please consult your system administrator for instruction before using DECT Handset 4145Ex/4146Ex.
- Do not open DECT Handset 4145Ex/4146Ex in a potentially explosive atmosphere.
- Use only the dedicated charger **NTTQ47MA** (orange) for charging DECT Handset 4145Ex/4146Ex.
- Do not charge DECT Handset 4145Ex/4146Ex in a potentially explosive atmosphere.
- The AC power adaptor used in connection with the charger must **not** be connected to a higher voltage than 250V AC.
- Use only battery pack **NTTQ47LA** for battery replacement.
- Use only headset part no. **0231 9517** (KIRK part no.) with DECT Handset 4145Ex/4146Ex.
- The leather pouch **A0553741** must be used with DECT Handset 4145Ex/4146Ex in the following situations:
 - In dry areas with humidity conditions of less than 60 %
 - When the user is wearing clothes that could cause electrostatic charging of the handset

- If defects occur, remove DECT Handset 4145Ex/4146Ex immediately from the potentially explosive atmosphere.
- Only KIRK telecom A/S may repair and service DECT Handset 4145Ex/4146Ex.
- Relevant data concerning repairs must be logged.
- For traceability it is advisable to keep a record of type and serial numbers and users of the handsets.

Name and adress of manufacturer



DECT Handset 4145Ex/ 4146Ex	Product name
IP64	IP 64 classification
Ex	DECT Handset 4145Ex/ 4146Ex is approved according to International standards
ib	Intrinsic safe, ib category
IIC	Equipment group II, ib group C (gas group C)
T3	Temperature group T3 (relevant for gas)

DECT Handset 4145Ex/ 4146Ex	Product name
IECEEx	International country code for notified body/year/ certification number
X	Special warnings concerning the use of DECT Handset 4145Ex/ 4146Ex exist, please refer to the users guide

II 2G	Equipment group II, zone 1 (gas)
II 3D	Equipment group II, zone 2 (dust)
T60°C	Max. surface temperature of DECT Handset 4145Ex/ 4146Ex in use
Ex logo	Specific marking of explosion protection
EEx	DECT Handset 4145Ex/ 4146Ex is approved according to European standards
ib	Intrinsic safe, ib category
II C	Equipment group II, ib group C (gas group C)
T3	Temperature group T3 (relevant for gas)
Demko	Name of notified body/ year/certification number
X	Special warnings concerning the use of DECT Handset 4145Ex/ 4146Ex exist, please refer to the users guide
CE 0539	CE marking and Demko identification number

Figure 1 Menu language

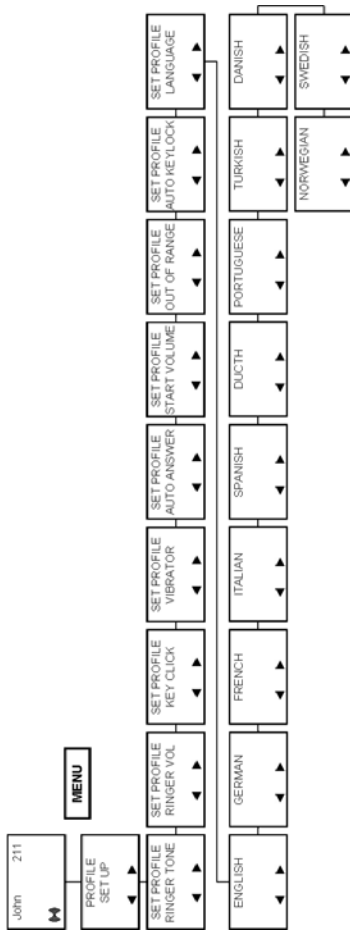


Figure 2 Menu profile set-up



Figure 3 Menu structure

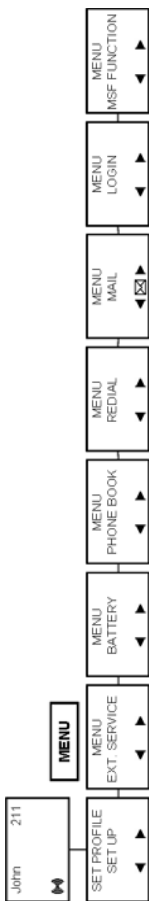


Figure 4 Menu mail

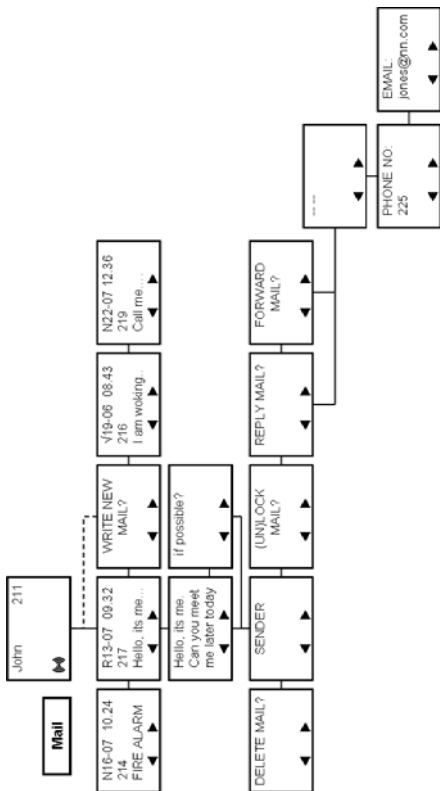


Figure 5 Menu phone book - storing a number

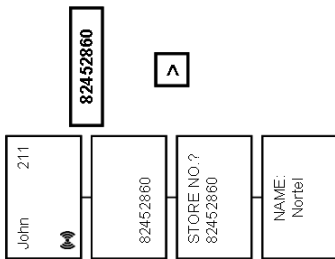


Figure 6 Menu phone book - reading, deleting, editing a number

